



APPLICATION FOR U.S. PATENT

[54] TITLE: Ring Bag Canine Waste Collection Device

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[58] FIELD SEARCH: 294/1.3-1.5

[56] REFERENCES CITED: U.S. PATENT DOCUMENTS

US-6,702,349	Mar 2004	Clements
US-6,386,605 B1	May 2002	Kaplan
US-6,158,395	Dec 2000	Bauklon
US-5, 971,452	Oct 1999	Marymor
US-5, 683,129	Nov 1997	Jensen
US-5, 676,411	Oct 1997	Kwok
US- 5,222,777	Jun 1993	Clonch
US-4, 852,924	Aug 1989	Ines
US-4, 236,741	Dec 1980	Emme

REFERENCES CITED: FOREIGN PATENT DOCUMENTS

JP20021452596	May 2002	Yamamoto
JP2002045072	Feb 2002	Koji
NL8802356-A	Apr 1990	Sieval



BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a canine waste collection device that prevents any solid pet waste material from reaching the ground and also provides a sanitary means to dispose of the waste material that is collected.

2. Description of Prior Art

Devices to assist in cleanup of animal waste have been proposed and patented for over 50 years. The few which I have cited pertain only to those that claim to remove all traces of animal waste by catching the waste material before it reaches the ground. Whereas, I will point out how each of these patents are different from said waste collection device proposed herein, and how the other patents lack certain characteristics necessary to be a useful and/or a commercially viable product.

Problems inherent in these patents cited render them impractical for general use as most are too difficult to manipulate, too cumbersome to carry, and too expensive to manufacture and sell. Most importantly, these patents which I cite in the next few paragraphs all overlook the negative effects their device will have to frighten the dog. I point out most important problems found in each of the related patents cited, as follows:

Example 1 - Patent No. US-6,702,349, under Clements, this device uses a handle with end mounted scoop and a plastic bag to catch the animal feces. There is no description of how the bag is secured to the ring. This device also describes a hook on the handle to carry the plastic bag with feces. This feature is totally unnecessary. This device is difficult to manipulate and does not resemble the ring bag device in any form or function.

Example 2 - Patent No. US-6,386,605 B1 under Kaplan, this device uses a pole and frame on which a paper bag is attached. The paper bag is threaded through a slot and is not simple to prepare or especially to reload while walking, if it is necessary. Also, this method, as evidenced by the drawings, is not usable with all size dogs, requires time and dexterity to prepare for use, and requires the dog handler to carry this cumbersome pole assembly throughout each walk with the dog. This patent does not resemble the Ring Bag device in any form or function.

Example 3 - Patent No. US-6,185,395 under Bauklon, this device uses a long pole with a collection bowl attached. The bowl has a series of covering plates that close over the waste material after it is collected. This method does not describe how the waste material is to be disposed. Also, this method is not usable with all size dogs and would frighten or distract the dogs. This patent does not resemble the Ring Bag device in any form or function.

Example 4 - Patent No. US-5,971,452 under Marymore, this device uses a long bent handle with an elliptical ring attached and around which a plastic bag is wrapped. The waste material is collected in the bag and then disposed of later. The inventor suggests that this method would be useful to a person who is physically handicapped or in a wheelchair. As an experienced dog handler, I can verify that very few handicapped persons would be able to use this device while walking their dogs. Often, dogs start to defecate beyond easy reach with this device, and depending on the position of the dog, the dog handler must move quickly to place the device behind the dog. Finally, this method is not usable with all size dogs and would frighten or distract the dogs. This patent does not resemble the Ring Bag device in any form or function.

Example 5 - Patent No. US-5,683,129 under Jensen, this device uses a long pole handle with a ring holder and bag. The bag collects the waste material which is disposed of later. This device is too large to use with medium size or small dogs. Also, the device is too cumbersome to carry and to reload during the walk. This device would be too expensive

to manufacture and is so large it would frighten or distract the dog. This patent does not resemble the Ring Bag device in any form or function.

Example 6 - Patent No. US-5,676,411 under Kwok, this device uses a long pole handle with a V-shaped frame attached. A plastic bag is held by two support arms and after the waste material is collected, the bag is released by a support clamp to be deposited in the trash. This device is too large to use with most dogs. Also, the device is too cumbersome to carry and to reload during the walk. This device would be too expensive to manufacture and is so large it would frighten or distract the dog. This patent does not resemble the Ring Bag device in any form or function..

Example 7 - Patent No. US-4,852,924 under Clonch, this device is designed for picking up animal excrement from the ground. The device is comprised of a plastic bag within a rigid sheath in which the hand is inserted and whereby objects can be picked up without touching the feces as the bag is turned inside out. This patent does not resemble the Ring Bag device in any form or function.

Example 8 - Patent No. US- 4,852,924 under Ines, this device uses a long pole attached to a circular frame with an elastic corded bag to catch the waste material. This device is too large for use with most dogs, and too cumbersome to carry while walking the dog. Also, this device would be too expensive to manufacture and sell. Finally, this device would be most difficult to reload, if necessary, while walking the dog. This patent does not resemble the Ring Bag device in any form or function.

Example 9 - Patent No. 4,236,741 under Emme, this device uses a pole with a ring attached. The ring holds a disposable container that catches the animal waste. A lid closes and the device is carried with the contents inside until after the walk. This patent does not resemble the Ring Bag device in any form or function.

Example 10 - Patent No. JP20021452596 under Yamamoto, this device is comprised of a ring, a handle and a bag with hooking holes to fit the claws attached to the ring to hold the bag. This patent does not resemble the Ring Bag device in any form or function.

Example 11 - Patent No. JP2002045072A under Koji, this device is comprised of a metal ring with hooks to secure the plastic bag to catch the animal feces and an adjustable pole to accommodate the operator in reaching behind the dog. This device is difficult to operate and not practical for collecting waste from a dog while walking the dog. This patent does not resemble the Ring Bag device in any form or function.

Example 12 - Patent No. NL8802356-A under Sieval, this device is comprised of rectangular metal frames, spring loaded to accommodate a plastic sack. The device is designed to grab animal waste that is deposited on the ground. This patent does not resemble the Ring Bag device in any form or function.

3. Benefits of the Ring Bag Device Over Other Animal Waste Collection Devices

a. The device does not disturb or distract the dog when it is defecating.

Owners experienced with walking their dogs know that the animal is most sensitive to danger when defecating. Also, all dogs react quickly to any disturbance or distraction. The ring bag device is unnoticed by the dog while defecating and thus has no negative effect on the dog.

b. One size fits all dogs.

The Ring Bag Animal Waste Collection device is designed for use by all dogs from the smallest up to the largest dogs. The ring bag lies flat on the ground and has a thickness of about one inch. This height is not a problem for the smallest or shortest dogs. The 10-inch ring inside the bag provides a large enough surface area to accommodate the droppings of even the largest dogs.

c. No cumbersome apparatus to carry or manipulate

The ring bag device is small and easy to carry. The twisted portion of the bag forms a handle that fits in the palm of the hand. The thumb fits around the ring and there remains enough room in the hand to hold the dog's leash. After use of the first bag, another ring bag can be reloaded in a few seconds during the walk.

d. No contact with the dog's feces

The plastic bag stretched across the ring forms a flat platform to receive the feces. When the folds of the bag are untwisted, the bag containing the feces is allowed to drop through the center of the ring. The bag is now inverted inside out and the feces remain inside the bag. The bag is then closed and is ready for disposal in a suitable trash container.

SUMMARY OF THE INVENTION

This invention called the Ring Bag device is formed when the steel ring is installed inside the plastic bag. The newly created ring bag device assumes physical and functional characteristics that are different from those of each component. The ring bag device provides the necessary characteristics for the perfect tool to catch and collect the animal waste.

a. A non-corrosive, 10-inch in diameter, steel ring was designed and manufactured to meet the requirements for use with the ring bag device. Tests proved the 10-inch in diameter ring to be the most practical size to collect waste from any size dog, from very large to very small dogs.

b. The ring was made from 9-gauge, steel wire for sturdiness and the weight of the ring, as determined by tests, must be at least 2.5 ounces. This weight is required to hold the bag flat on the ground and remain in place, and to withstand heavy winds that could move the ring bag away from the dog.

- c. The size of the disposable plastic bag used with the 10-inch ring must be 12x7x14 inches and gusseted to allow sufficient space for the ring to enter and leave the bag in the manner required and to not bind on the ring.
- d. The thickness of the disposable plastic bags should be no greater than 1.5 mil to provide a softness required for the plastic bag to slip through the ring and enclose the waste collected.
- e. The color selected for the disposable plastic bags is selected to be opaque white. This to indicate the most sanitary operations and provide high visibility for dog handlers to properly dispose of the bag containing the waste.

BRIEF DESCRIPTION OF DRAWINGS

FIG. 1 is a side view of the plastic bag showing how the steel ring is inserted.

FIG. 2 is a side view of the plastic bag with the ring inside placed flat across the bottom.

FIG. 3 is a side view of the ring bag after after the sides of the bag have been folded together and twisted two or three times.

FIG. 4 is a side view of the ring bag with the flat side up, as it is placed on the ground.

FIG. 5 is a side view of the ring bag on the ground as it appears after the canine waste has been deposited.

FIG. 6 shows the ring bag as the side folds of the plastic bag are untwisted.

FIG. 7 shows a side view of the ring, as the bag containing the dog's waste drops through the center of the ring.

DETAILED DESCRIPTION OF THE INVENTION

This invention, known as the Ring Bag Canine Waste Collection Device, can be fully understood after a study of the following description and drawings. The operations performed consist of preparation of the ring bag before the walk, waste collection during the walk, and waste disposal after the walk.

Figure 1 shows a side view of the ring bag device, as the steel ring 1 is inserted through the top opening of the plastic bag 2. The ring 1 is rotated horizontally and pressed to the bottom 3 of the plastic bag 2.

Figure 2 is a side view of the ring bag device showing the steel ring 1 positioned flat across the bottom 3 of the plastic bag 2. The gusset 4 on each side of the plastic bag 2 allows for expansion on the sides. The bottom 3 of the plastic bag 2 forms an oval shape that allows the steel ring 1 to fit easily inside the plastic bag 2, but not fit too tight.

Figure 3 is a side view of the ring bag device after the sides 5 of the plastic bag 2 have been folded together and twisted two or three times. The plastic bag 2 is now stretched across the steel ring 1. The seam 6 of the plastic bag 2 should be located across the center of the steel ring 1, so the waste will be deposited as close as possible to the middle of the plastic bag 2. When the ring bag device is carried, the twisted sides 5 of the plastic bag 2 form a convenient handle that fits in the palm of the hand and the thumb fits around the ring 1.

Figure 4 is a side view of the ring bag device with the flat side 7 up, as it is placed on the ground behind the dog. The twisted sides 5 of the ring bag will lie flat on the ground and the steel ring 1 will hold the bag in position where placed. The flat upper surface 7 of the ring bag device forms a 10-inch wide circular platform to receive the canine waste.

Figure 5 is a side view of the ring bag device as it would appear on the ground, containing the canine waste 8, after the dog is finished excreting. The ring bag device is lifted by grasping the steel ring 1 inside the plastic bag 2 and while at the same time holding the steel ring 1 parallel to the ground, to prevent dropping any of the canine waste 8. The dog handler should hold the steel ring 2 with one hand and reach under the ring bag 1 to untwist the plastic folds 5 of the ring bag device.

Figure 6 shows the ring bag device as the folds 5 of the plastic bag 2 are untwisted. The sides of the folds 5 of the plastic bag 2 are lifted up and over toward the center of the steel ring 1. This process of opening the plastic folds is continued around the steel ring 1 until about three-quarters of the plastic folds 5 are lifted up over the edges of the steel ring 1.

Figure 7 shows a side view of the ring bag as the plastic bag 2 containing the dog's waste 8 drops through the center of the ring 1. The weight of the dog's waste 8 will cause the plastic bag 2 drop through the center of the ring. This process causes the plastic bag 2 to be turned inside out with the canine waste 8 is enclosed inside the bag. The dog handler should close the plastic bag with the canine waste contents 8 inside for disposal later in a suitable trash container.